

**United States Department of the Interior
Bureau of Land Management
San Luis Valley Field Office
1313 E. Hwy 160
Monte Vista, CO 81144**

Environmental Assessment

Fourmile East Solar Energy Zone Deallocation RMP Amendment

DOI-BLM-CO-F030-2017-0005 EA

October 2018





United States Department of the Interior



BUREAU OF LAND MANAGEMENT
San Luis Valley Field Office
1313 US Highway 160 East
Monte Vista, CO 81144

Dear Reader:

The Bureau of Land Management (BLM) has completed the Proposed Resource Management Plan Amendment (RMPA)/Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Fourmile East Solar Energy Zone Deallocation RMP Amendment. The BLM prepared the Proposed RMPA/EA in consultation with various government agencies and organizations. The purpose of the Proposed RMPA is to amend the San Luis Resource Area Resource Management Plan (SLRA RMP) to deallocate the Fourmile East Solar Energy Zone (SEZ). The need for action is in response to concerns by Native American Tribes, The National Park Service and Colorado Parks and Wildlife. Tribal Consultation and archaeological research have determined that development of the SEZ has a high potential to cause significant impacts to Native American cultural values. Consultation with cooperators has also noted the importance of the Fourmile area for wildlife migration across the base of the Sangre de Cristo Mountains and for the value of maintaining the night skies in proximity to the National Park Service's Great Sand Dunes National Park and Preserve.

Proposed RMPA would de-allocate the Fourmile East Solar Energy Zone and associated variance lands (hereafter known as the Fourmile Solar Energy Zone or Fourmile SEZ), and return the land use to what was identified in the 1991 SLRA RMP. The Fourmile SEZ would be removed from consideration for utility-scale solar entry. The lands within the Fourmile SEZ and variance areas will still be available for less than utility scale (less than 20 mw) solar development as described in the PEIS and ROD (2012) that amended the 1991 SLRA RMP.

Pursuant to BLM's planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process for this Proposed RMPA and has an interest which is or may be adversely affected by the planning decisions may protest approval of the planning decisions contained therein. The Proposed RMPA/EA and FONSI are open for a 30-day protest period beginning November 8, 2018.

For further information on filing a protest, please see the accompanying protest regulations in the pages that follow (labeled as Attachment 1). The regulations specify the required elements of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents or available planning records (e.g. meeting minutes or summaries, correspondence, etc.).

Emailed protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular mail or overnight delivery postmarked by the close of the protest period. Under these conditions, the BLM will consider the emailed protest as an advance copy and will afford it full consideration. If you wish to provide the BLM with such advance notification, please direct emailed protests to: protest@blm.gov.

All protests must be in writing and mailed to one of the following addresses:

Regular Mail:

Director (210)

Attn: Protest Coordinator

P.O. Box 71383

Washington, D.C. 20024-1383

Overnight Delivery:

Director (210)

Attn: Protest Coordinator

20 M Street SE, Room 2134LM

Washington, D.C. 20003

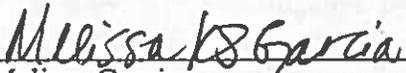
All protests must be postmarked on or before December 8, 2018.

Before including your address, phone number, email address, or other personal identifying information in your protest, be advised that your entire protest – including your personal identifying information – may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

The BLM Director will make every attempt to promptly render a decision on each protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior on each protest. Responses to protest issues will be compiled and formalized in a Director's Protest Resolution Report made available following issuance of the decisions.

Upon resolution of all land use plan protests, the BLM will issue a Decision Record (DR). The DR will be available to all parties at <https://go.usa.gov/xQPfE>

Sincerely,



Melissa Garcia
Field Manager
Bureau of Land Management, Colorado

Protest Regulations

[CITE: 43CFR1610.5-2]

TITLE 43--PUBLIC LANDS: INTERIOR
CHAPTER II--BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR
PART 1600--PLANNING, PROGRAMMING, BUDGETING--Table of Contents
Subpart 1610--Resource Management Planning
Sec. 1610.5-2 Protest procedures.

- (a) Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval or amendment of a resource management plan may protest such approval or amendment. A protest may raise only those issues which were submitted for the record during the planning process.
- (1) The protest shall be in writing and shall be filed with the Director. The protest shall be filed within 30 days of the date the Environmental Protection Agency published the notice of receipt of the final environmental impact statement containing the plan or amendment in the Federal Register. For an amendment not requiring the preparation of an environmental impact statement, the protest shall be filed within 30 days of the publication of the notice of its effective date.
- (2) The protest shall contain:
- (i) The name, mailing address, telephone number and interest of the person filing the protest;
 - (ii) A statement of the issue or issues being protested;
 - (iii) A statement of the part or parts of the plan or amendment being protested;
 - (iv) A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record; and
 - (v) A concise statement explaining why the State Director's decision is believed to be wrong.
- (3) The Director shall promptly render a decision on the protest.
- (b) The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail, return receipt requested. The decision of the Director shall be the final decision of the Department of the Interior.

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CHAPTER 1 - INTRODUCTION

1.1 BACKGROUND

This Plan Amendment Environmental Assessment (EA) has been prepared by the Bureau of Land Management (BLM) to analyze whether to deallocate the Fourmile East Solar Energy Zone (SEZ) and associated variance lands. The Fourmile East SEZ consists of an area of 2,882 acres (11.7 km²), is located in the east portion of the San Luis Valley, and is designated as a SEZ and variance lands in the Solar PEIS ROD (BLM 2012a) (see maps 1 and 2). The associated variance lands consist of an additional 3,530 acre area. The Solar PEIS analysis for this SEZ identified the potential for significant impacts to cultural and Native American resources from solar development.

To provide flexibility, variance areas were also made available for utility-scale solar energy development in accordance with the variance process. Associated variance parcels are made up of BLM-administered lands that are outside of the formal Fourmile SEZ. The BLM considers right-of-way (ROW) applications for utility-scale solar energy development in variance parcels on a case-by-case basis. This evaluation is referred to as the variance process. The variance parcels located on the maps have been included in the analysis for deallocation of the Fourmile SEZ and variance parcels.

If deallocated, the SEZ and variance parcels will be excluded from utility-scale development. Nonutility-scale solar development (less than 20 megawatts) may be considered through the right-of-way process and will have site-specific environmental analysis and consultations associated with a plan of development.

The proposed action of deallocation of the SEZ was developed in response to Native American cultural and religious concerns in regards to the proposed development of the SEZ. Tribal Consultation and archaeological research have determined that development of the SEZ has a high potential to cause significant impacts to Native American cultural values. Consultation with cooperators has also noted the importance of the Fourmile area for wildlife migration across the base of the Sangre de Cristo Mountains and for the value of maintaining the night skies in proximity to the National Park Service's Great Sand Dunes National Park and Preserve.

1.2 PURPOSE AND NEED

The purpose of the action is to amend the San Luis Resource Area Resource Management Plan (SLRA) (RMP) to de-allocate the Fourmile East Solar Energy Zone (SEZ) and surrounding variance lands. The need for the action is to respond to new information that has identified concerns with Native American traditional and cultural values. Due to a legal obligation to protect the confidentiality of the areas related to these concerns, BLM is withholding detailed descriptions and locations from public dissemination.

1.3 DECISION TO BE MADE

The BLM will decide whether to amend the San Luis Resource Area Resource Management Plan to deallocate the Fourmile East Solar Energy Zone based on the analysis contained in this Environmental Assessment (EA). The BLM may choose to: a) amend the RMP as proposed, b)

amend the RMP with modifications to the proposed amendment, or c) not amend the RMP at this time.

1.4 IDENTIFYING INFORMATION

PROJECT TITLE: Amend the San Luis Resource Area Resource Management Plan Fourmile Solar Energy Zone

PLANNING UNIT: San Luis Resource Area managed by the San Luis Valley Field Office

LEGAL DESCRIPTION: New Mexico Principal Meridian, Alamosa County, Colorado

T. 37 N., R. 12 E.,

Section 2, Lots 3 and 4, SW¹/₄NW¹/₄, SE¹/₄NW¹/₄;

Section 3, Lots 3 and 4, SW¹/₄NE¹/₄, SE¹/₄NE¹/₄, SW¹/₄NW¹/₄, SE¹/₄NW¹/₄.

T. 38 N., R. 12 E.,

Section 13, SW¹/₄, NW¹/₄SE¹/₄, SW¹/₄SE¹/₄;

Section 23, All;

Section 24, NW¹/₄, SW¹/₄, NW¹/₄SE¹/₄, SW¹/₄SE¹/₄;

Section 25, NW¹/₄, SW¹/₄, NW¹/₄NE¹/₄, SW¹/₄NE¹/₄;

Section 26, All;

Section 35, NW¹/₄.

Variance Lands Legal Description:

New Mexico Principal Meridian, Alamosa County, Colorado

T. 36 N., R. 11 E.,

Section 1, Lots 1-4 inclusive, SW¹/₄NE¹/₄, SE¹/₄NE¹/₄, SW¹/₄NW¹/₄, SE¹/₄NW¹/₄, SW¹/₄;

Section 12, All;

Section 13, All.

T. 36 N., R. 12 E.

All.

T. 37 N., R. 12 E.,

Section 2, SE¹/₄;

Section 5, Lot 2, SW¹/₄NE¹/₄, NW¹/₄SW¹/₄, NE¹/₄SW¹/₄;

Section 31, Lots 3 and 4, NE¹/₄SW¹/₄, SE¹/₄SW¹/₄.

T. 38 N., R. 12 E.,

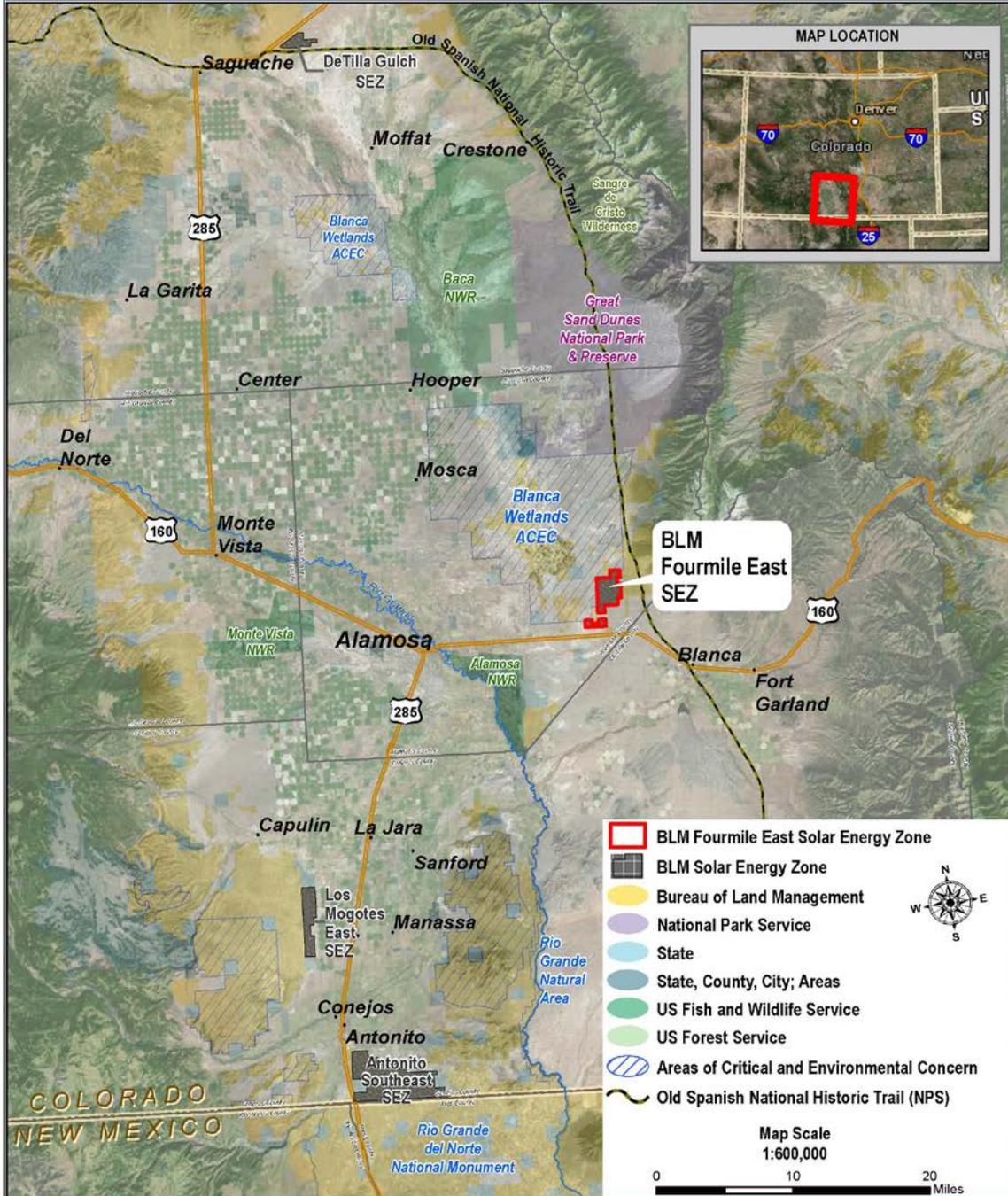
Section 12, NW¹/₄NE¹/₄, NE¹/₄NW¹/₄, NW¹/₄NW¹/₄.

APPLICANT: BLM

Colorado Solar Energy Zones

Withdrawal of Fourmile East Solar Energy Zone from the San Luis Resource Management Plan, and Amendment
 DOI-BLM-CO-F030-2016-0007 EA

Department of the Interior
 Bureau of Land Management



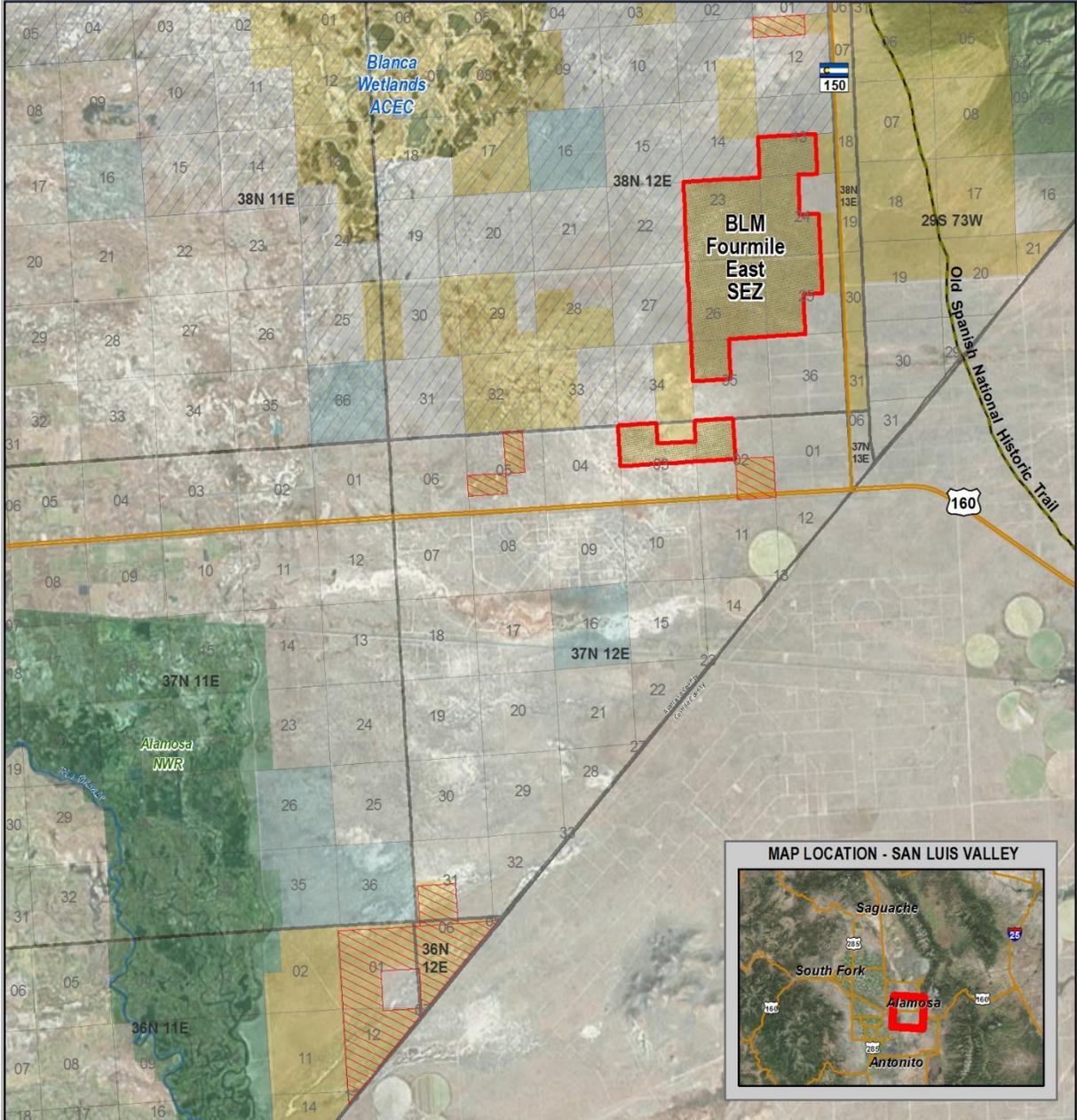
Map Disclaimer: No warrantee is made by the BLM as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked for current status on any specific tract of land. Map created March 2016. Map Projection: USA Contiguous Albers Equal Area Conic. Background image: National Agriculture Imagery Program 2013

Map I

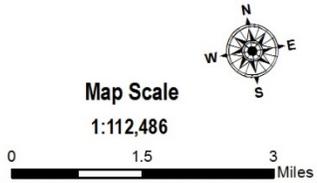
Fourmile East Solar Energy Zone & Deallocation Lands

Withdrawal of Fourmile East Solar Energy Zone from the San Luis Resource Management Plan, and Amendment
 DOI-BLM-CO-F030-2016-0007 EA

Department of the Interior
 Bureau of Land Management



- | | |
|--|------------------------------|
| BLM Fourmile East Solar Energy Zone | Bureau of Land Management |
| BLM Fourmile East Variance Land | State |
| BLM Solar Energy Zone | State, County, City; Areas |
| Area of Critical and Environmental Concern (BLM) | US Fish and Wildlife Service |
| Old Spanish National Historic Trail (NPS) | US Forest Service |



Map Disclaimer: No warranty is made by the BLM as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked for current status on any specific tract of land. Map created March 2016. Map Projection: USA Contiguous Albers Equal Area Conic. Background image: National Agriculture Imagery Program 2013

1.5 PLAN CONFORMANCE REVIEW

The Proposed Action is subject to, has been reviewed and has been found to be in partial conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: San Luis Resource Area RMP 1991

Date Approved: September, 1991

Name of Plan Amendment: Final Programmatic Environmental Impact Statement (PEIS) for Solar Energy Development in Six Southwestern States.

Date Approved: October, 2012

The final PEIS for Solar Energy Development (plan amendment) designated SEZs. Deallocating the Fourmile SEZ is not in conformance with the RMP, and therefore requires a plan amendment. The lands within the Fourmile SEZ and variance areas remain available for less than utility scale (less than 20 mw) solar development, which is in conformance with the RMP.

1.6 SCOPING, PUBLIC INVOLVEMENT AND ISSUES

1.6.1 Scoping:

NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis.

Persons/Public/Agencies Consulted: Scoping was completed by posting the project to the BLM's National ePlanning website, and emailing interested publics. The public that were involved in the development of the Solar Regional Mitigation Strategy were notified through an email. Comments were received from the Wilderness Society and the Hopi Tribe. Both comments were supportive of the project. The Wilderness Society comments related to the Solar Regional Mitigation Strategy were dismissed because they were out of the scope of the project as identified in the Notice of Intent in the National Federal Register.

Scoping also occurred through Annual Congressional briefings at the State level and the local level and with tribes at the Rocky Mountain District annual Tribal Consultation meetings and during the annual NAGPRA meeting. It also occurred with Colorado Parks and Wildlife and with the GSNDP&P in person.

CHAPTER 2 - PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The purpose of this chapter is to provide information on the Proposed Action and Alternatives. Alternatives considered but not analyzed in detail are also discussed.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Proposed Action

The proposed action is to de-allocate the Fourmile East Solar Energy Zone (2,882 acres) and associated variance lands (3,530 acres) (hereafter known as the Fourmile Solar Energy Zone or Fourmile SEZ), and return the land use to what was identified in the 1991 SLRA RMP. The Fourmile SEZ would be removed from consideration for utility-scale solar entry. The lands within the Fourmile SEZ and variance areas would still be available for less than utility scale (less than 20 mw) solar development as described in the PEIS and ROD (2012) that amended the 1991 SLRA RMP.

2.2.2 No Action Alternative

The No Action Alternative would continue to identify the Fourmile Solar Energy Zone and surrounding variance lands as a priority area for utility-scale solar energy development in Colorado.

2.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

The BLM considered expanding protections into the SEZ and potentially extending the Blanca Wetlands ACEC. However, the decision was made to wait to analyze the potential ACEC expansion when the SLV RMP revision occurs in the future considering a more comprehensive landscape approach.

CHAPTER 3 - Affected Environment, Environmental Consequences, and Cumulative Impacts

3.1 INTRODUCTION

This section provides a description of the human and natural environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct, indirect and cumulative effects on the affected environment stemming from the implementation of the actions under the Proposed Action and other alternatives analyzed.

3.1.1 Interdisciplinary Team Review

The following table is provided as a mechanism for resource staff review, to identify those resource values with issues or potential impacts from the proposed action and/or alternatives. Those resources identified in the table as impacted or potentially impacted will be brought forward for analysis.

| <u>Resource</u> | <u>Initial and date</u> | <u>Comment or Reason for Dismissal from Analysis</u> |
|---|--------------------------------|--|
| <u>Air Quality</u> <i>Nancy Keohane</i> | NK 6/29/17 | Deallocation of the Fourmile SEZ will not affect air quality. |
| <u>Geology/Minerals</u> <i>Rebecca Morris</i> | | This resource carried forward for analysis |
| <u>Soils</u> <i>Negussie Tedela</i> | NT 06/28/2017 | De-allocation of the Fourmile Solar Energy Zone from consideration for utility-scale solar energy development will eliminate all soil health impacts addressed in the Solar PEIS and no additional analysis is required. |
| <u>Water Quality</u> <u>Surface and Ground</u> <i>Negussie Tedela</i> | NT 06/28/2017 | De-allocation of the Fourmile Solar Energy Zone from consideration for utility-scale solar energy development will eliminate all water resources impacts addressed in the Solar PEIS and no additional analysis is required. |
| <u>Invasive Plants</u> <i>Eduardo Duran</i> | END 8/22/2017 | Deallocation of the SEZ will not impact the invasive plants as deallocation is an administrative action and will not have any physical impacts on the spread of invasive plants resources. |
| <u>T&E and Sensitive Species</u> <i>Sue Swift-Miller</i> | SMS 8/29/2017 | De-allocation of the Fourmile Solar Energy Zone from consideration for utility-scale solar development will eliminate all potential impacts to T&E and Sensitive Species addressed in the Solar PEIS. No additional analysis is required. |
| <u>Vegetation</u> <i>Melissa Shawcroft</i> | MJS 6/29/2017 | Deallocation of the SEZ will not impact the vegetation as the process of deallocation is an administrative action and will not have any physical impacts on the BLM vegetative resources. |
| <u>Wetlands and Riparian</u> | END 8/22/2017 | Wetlands and Riparian resources are not present. Therefore, deallocation of the Fourmile SEZ will not affect Wetlands and Riparian. |
| <u>Wildlife Aquatic</u> <i>Sue Swift-Miller</i> | SSM 8/29/2017 | De-allocation of the Fourmile Solar Energy Zone from consideration for utility-scale solar development will eliminate all potential impacts to aquatic wildlife addressed in the Solar PEIS, and no additional analysis is required. |
| <u>Wildlife Terrestrial</u> <i>Sue Swift-Miller</i> | SSM 8/29/2017 | De-allocation of the Fourmile Solar Energy Zone from consideration for utility-scale solar development will eliminate potential impacts to terrestrial wildlife addressed in the Solar PEIS and be responsive to the concerns of impacts to the wildlife migration corridor along the base of the Sangre de Cristo Mountains , and no additional analysis is required. |
| <u>Migratory Birds</u> <i>Sue Swift-Miller</i> | SSM 8/29/2017 | De-allocation of the Fourmile Solar Energy Zone from consideration for utility-scale solar development will eliminate all potential impacts to migratory birds addressed in the Solar PEIS, and no additional analysis is required. |
| <u>Cultural Resources</u> <i>Lowell Evans</i> | LTE 8/21/17 | The proposed action of deallocation will have no effect to cultural resources. Since the proposed action centered on Tribal Consultation and Cultural Resources, the resource was carried forward for analysis. |
| <u>Native American Religious Concerns</u> <i>Lowell Evans</i> | LTE 8/21/17 | The proposed action of the deallocation will have no effect to Native American Religious Concerns. Since the proposed action centered on Tribal Consultation and Cultural Resources, the resource was carried forward for analysis. |
| <u>Economics</u> <i>Martin Weimer</i> | mw, 6/13/17 | This action will not result in notable impacts to the socio-economics of individuals, groups or to the area. |

| <u>Resource</u> | <u>Initial and date</u> | <u>Comment or Reason for Dismissal from Analysis</u> |
|---|--------------------------------|---|
| <u>Paleontology</u> <i>Jeff Brown/Lowell Evans</i> | LTE 8/21/17 | Paleontological resources may exist within the Fourmile SEZ. There are no impacts from the deallocation process therefore, therefore no additional analysis is required. |
| <u>Visual Resources</u> <i>Sean Noonan</i> | STN 6/16/17 | De-allocating the undeveloped Fourmile Solar Energy Zone (SEZ) will result in no change to existing Visual Resources Management inventory or management class. By not developing the SEZ, scenic values related to the Old Spanish National Historic Trail, Los Caminos Antiguos Scenic and Historic Byway, Great Sand Dunes National Park and Preserve, and the Blanca Massif area of cultural significance will be preserved and protected. |
| <u>Environmental Justice</u> <i>Martin Weimer</i> | mw, 6/13/17 | The proposed action affects areas that are rural in nature. The land adjacent to this parcel is open rangeland, as a result, there are no minority or low-income populations in or near the project area. The proposal is an administrative exercise and will not have a disproportionately high or adverse environmental effects on minority or low-income populations. |
| <u>Wastes Hazardous or Solid</u> <i>Rebecca Morris</i> | RSM 7/6/2017 | No effects |
| <u>Recreation</u> <i>Sean Noonan</i> | STN 6/16/17 | Deallocating the undeveloped Fourmile Solar Energy Zone will have no impact to existing recreation resources located in the project area, which will continue to be managed consistent with the goals and objectives of the FO's Extensive Recreation Management Area. |
| <u>Farmlands Prime and Unique</u> <i>Eduardo Duran</i> | END 8/22/17 | No effects. |
| <u>Lands and Realty</u> <i>Leon Montoya</i> | LAM 06-14-17 | Deallocation of the SEZ will not affect any lands/realty actions. The de-allocated lands will continue to be open for current and future uses as stated in the Resource Management Plan as amended by the PEIS and ROD to include allowances for less than utility-scale solar development. There is currently no closure to solar development at a smaller scale within the Fourmile SEZ and variance lands. Solar energy development is still possible and will be analyzed in the future if a lease and plan of development is submitted to BLM. |
| <u>Wilderness, WSAs, ACECs, Wild & Scenic Rivers</u> <i>Sean Noonan</i> | STN 6/16/17 | There are no Wilderness, WSA, WSR, or ACEC's located on BLM lands in the project area. De-allocating the undeveloped Fourmile Solar Energy Zone will better protect the wilderness values of the adjacent Sangre de Cristo Wilderness. |
| <u>Wilderness Characteristics</u> <i>Sean Noonan</i> | STN 6/16/17 | Deallocating the undeveloped Fourmile Solar Energy Zone will benefit any potential lands with wilderness characteristics located in the project area. |
| <u>Range Management</u> <i>Melissa Shawcroft</i> | MJS 6/29/2017 | Deallocation of the SEZ will not affect range management of the two existing cattle allotments as they will continue to be grazed as they currently are under their existing grazing management plans as stated in the Resource Management Plan. |
| <u>Forest Management</u> | PM 6/12/2017 | No effects. |
| <u>Cadastral Survey</u> <i>Sean Hines</i> | SJH 06/15/2017 | No effects. |

| <u>Resource</u> | <u>Initial and date</u> | <u>Comment or Reason for Dismissal from Analysis</u> |
|---|-------------------------|--|
| <u>Fire/Fuels</u> <i>Paul Minow</i> | PM 6/12/2017 | No effects. |
| <u>Law Enforcement</u> <i>Brian Garcia</i> | BG | No effects. |

The affected resources brought forward for analysis include:

- Geology/Minerals
- Cultural Resources
- Native American Religious Concerns

3.2 PHYSICAL RESOURCES

3.2.2 GEOLOGIC AND MINERAL RESOURCES

Affected Environment

The Mineral Potential Report (MPR) conducted as part of the Fourmile East PEIS (BLM 2012; Keller and Wray 2001) concludes there are no documented occurrences of locatable mineral deposits or prospects within the Fourmile East SEZ. The Fourmile East SEZ crosses no mineralized areas or historical districts and there has been no historic hard rock or locatable mineral activity in the area encompassed by the SEZ.

Potential oil and gas, geothermal and mineral material resources are present within the designated Fourmile East SEZ.

In the future, if deallocation of the Four Mile East SEZ is approved, the SLVFO will consider removing the mineral withdrawal which would open the area to locatable mineral exploration as originally designated in the 1991 SLRA RMP. The mineral withdrawal is in effect until it expires or is revoked and the action is not considered in this document.

Environmental Consequences

Proposed Action The potential for oil and gas, geothermal and mineral material resources are present within the designated Fourmile SEZ and mineral entry conflicts with potential solar energy development would be reduced if utility-level (>20 megawatt) solar development is excluded. Until the mineral withdrawal is revoked, locatable mineral development will be excluded from the site. The potential for interest or development of mineral material resources,

oil and gas, and geothermal is low. No resources or future extraction of resources will be negatively impacted by the deallocation of the Fourmile SEZ.

No Action Alternative Under the no action alternative, the area encompassed by the Fourmile East SEZ would remain open to utility-scale solar energy development. The withdrawal of locatable mineral entry stated to alleviate conflict between solar energy development and mineral development would remain in effect as stated in the Federal Register Notice dated July 5, 2013. Oil and gas, geothermal and mineral material potential exists, but is low and potential impacts would be the same as those in the proposed action above.

Cumulative Impacts

Cumulative effects include the impact of past, present, and reasonably foreseeable future activities combined with the effects of the proposed action. Past activities within the SEZ in relationship to locatable, saleable, and fluid minerals are minimal to non-existent. Only the prediction of future economic trends can determine the future interest of mineral entities within the Fourmile SEZ.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 CULTURAL RESOURCES

Affected Environment

Background

The San Luis Valley is rich in cultural history, with documented evidence of human occupation extending as far back as 12,000 years. Paleoindian “Folsom” era prehistoric archeological sites are documented in the immediate area around the Fourmile Solar Energy Zone (SEZ). Archaic and late prehistoric archeological sites are represented as well. Historic sites such as homesteads, mines, irrigation ditches, and historic travel routes are documented in the San Luis Valley. By 1600 the Spanish Empire was present in nearby northern New Mexico. Spanish incursions into the valley are documented in the 17th and 18th centuries. Permanent settlement came in 1852 with the establishment of the community of San Luis, Colorado’s oldest community. The establishment of San Luis also brought with it the establishment of Colorado’s first acequia landscape and Colorado’s first water right. By the 1880s the United States government had established Fort Garland at the eastern entrance to the San Luis Valley and the railroad had arrived in the Valley, marking a new period of increased settlement. The East Fork of the North Branch of the Old Spanish Trail National Historic Trail designated route is located 1.6 miles to the east of the project area.

There have been a large number of archeological sites recorded in the surrounding area suggesting that the Fourmile SEZ has a high potential for containing cultural resources. More detailed information on known cultural resources in the area can be found in the *Draft and Final*

Programmatic Environmental Impact Statement (PEIS) for Solar Energy Development in Six Southwestern States.

Traditional Cultural Properties

Tribal consultation was undertaken for the Fourmile East Solar Energy Zone project. Representatives of multiple tribes informed the BLM that multiple places in the San Luis Valley have religious and traditional values. No Traditional Cultural Properties have been formally designated under the National Historic Preservation Act of 1966. The Blanca Massif area on Mount Blanca is an area of significance that is within the viewscape of the Fourmile East SEZ.

Environmental Consequences

Proposed Action

The proposed action does not involve ground disturbance and does not propose activities on the ground. The proposed action will not affect cultural resources. All future undertakings within the Fourmile SEZ area will be subject to separate Tribal consultation, National Historic Preservation Act Section 106 review, and required State Historic Preservation Officer consultation and concurrence. The Blanca Massif area is a significant place for many people and will be less impacted within the viewscape with removal of the designation of utility-scale solar development.

No Action Alternative

The no action alternative would continue to identify the SEZ and associated variance lands as a priority area for utility-scale solar energy development in Colorado. As discussed in the Draft and Final Solar PEIS, development of the Fourmile East SEZ is highly likely to have direct and indirect effects on cultural resources. Tribal Consultation for this project has indicated that the development of the Fourmile East Solar Energy Zone would have direct and indirect effects to Traditional Cultural Properties (described in part in the Final Solar PEIS, 2012, other impacts are kept confidential based on tribal consultation).

Cumulative Impacts

Proposed Action

The proposed action will have no additional cumulative impacts to cultural resources. The proposed action will be a beneficial effect to cultural resources for the reasons listed above. No ground disturbing activities related to utility-scale solar development will occur and therefore there will be no impacts to cultural resources.

No Action Alternative

There would be no additional cumulative impacts.

3.4.2 NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment

The proposed action of de-allocation of the SEZ was developed in response to Native American cultural and religious concerns in regards to potential development of the SEZ. Tribal consultation has determined that development of the SEZ has a high potential to cause significant impacts to Native American cultural and religious values. Due to a legal obligation to protect the confidentiality of the areas related to these concerns, BLM is withholding detailed descriptions and locations from public dissemination.

Environmental Consequences

Proposed Action: The proposed action involves no development and would have no effect related to Native American religious concerns. The proposed action would be beneficial to Native American concerns because it would eliminate impacts to Native American cultural and religious values from potential utility-scale solar development. All future undertakings within the Fourmile East SEZ area will be subject to separate Tribal Consultation, National Historic Preservation Act Section 106 Review, and required State Historic Preservation Officer consultation and concurrence.

No Action Alternative: San Luis Valley Affiliated Tribes have expressed concern with the development of the Fourmile SEZ. Tribes have informed the BLM that development of the Fourmile SEZ will result in direct and indirect effects to Native American cultural and religious values. Tribal consultation has determined that utility-scale solar development at the Fourmile Solar Energy Zone cannot be mitigated. Comparatively, tribal consultation identified potential mitigation measures for two other SEZs (Los Mogotes and Antonito SEZs).

Cumulative Impacts

Proposed Action: Deallocation of the Fourmile East SEZ would have no cumulative impacts to Native American Religious concerns.

No Action Alternative: Tribal Consultation for this project has indicated that the development of the Fourmile East Solar Energy Zone would have cumulative impacts to Native American cultural and religious values. Tribal Consultation for this project has indicated that the development of the Fourmile East Solar Energy Zone would have impacts to Traditional Cultural Properties. Tribal consultation has determined that utility scale solar development at the Fourmile East Solar Energy Zone cannot be mitigated.

3.6 CUMULATIVE IMPACTS SUMMARY

The analysis of potential cumulative impacts in the vicinity of Fourmile East SEZ presented here is generally thought to decrease because the SEZ will be deallocated and utility-scale solar will not be developed on the site. The lands around the SEZ are privately owned or administered by the USFS, NPS or BLM. Solar development has and will likely continue to occur on the floor San Luis Valley on private lands. Impacts can be additive with private land solar development and future solar development on public lands to wildlife movement and habitat loss and fragmentation and to reflective surfaces and lighting impacting night sky values. Issues brought forward through consultation included wildlife migration at the base of the Sangre de Cristo

mountain range between private land near the town of Blanca north to the Great Sand Dunes NP&P and Baca National Wildlife Refuge, and the impacts from solar development to night sky designation from the Great Sand Dunes National Park and Preserve. Based on consultation and comments from tribes and partners within the vicinity of the Fourmile East SEZ, larger scale analysis will likely occur at the future Resource Management Plan Revision stage where it is appropriate to evaluate variance lands and exclusion areas for a larger landscape in the vicinity of the Great Sand Dunes National Park and Preserve and the Sangre de Cristo Mountain range.

CHAPTER 4 - CONSULTATION AND COORDINATION

4.1 LIST OF PREPARERS AND PARTICIPANTS

Please see Interdisciplinary Team Review list (section 3.1.1) for BLM Participants

4.2 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

Southern Ute Indian Tribe

Colorado Parks and Wildlife

Ute Mountain Ute Tribe

Great Sand Dunes NP&P

Jicarilla Apache Tribe

The Hopi Tribe

Ute Tribe of the Uintah & Ouray Reservation

Pueblo of Nambe

Navajo Nation

Pueblo of Santa Ana

Santo Domingo Pueblo

San Ildefonso Pueblo

Ohkay Owingeh

Santa Clara Pueblo

Taos Pueblo

Pueblo de Cochiti

Pueblo of Picuris

Pueblo of Zuni

Pueblo of Laguna

Pueblo of Acoma

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